

IIT Madras announces online platform 'E-Source'



- The Indian Institute of Technology (IIT) Madras is working on developing an innovative digital model to address the problem of e-waste (electronic wastes).
- The digital platform, named as 'e-Source,' will act as an exchange platform, to serve as an online marketplace for Waste Electrical and Electronic Equipment (WEEE).
- The platform will link various stakeholders (buyers and sellers) of used and waste electronic equipment and components, both in the formal and informal economy.
- The initiative is being led by the Indo-German Centre for Sustainability (IGCS), a centre set up at IIT Madras in 2010 at the initiative of the German and Indian governments.

India Conducts Maritime Partnership Exercise with Algerian Navy



- The Indian Naval Ship, INS Tabar, is on her goodwill visit to the number of ports in Africa and Europe since June 2021 till September 2021.
- As a part of this visit, INS Tabar took part in the Maiden Maritime Partnership Exercise with Algerian Navy, off the Algerian coast, in the Mediterranean Sea.
- The Algerian Naval Ship ANS Ezzadjer participated in the exercise.
- The objective of the exercise was to enhance interoperability, understand the concept of operations followed by each other, and opened the possibility of increasing interaction and collaboration between the two navies in the future.
- INS Tabar is a Talwar-class stealth Frigate built in Russia for the Indian Navy. The ship is a part of the Indian Navy's Western Fleet, based in Mumbai.

'My Pad, My Right' project



- In Tripura, Union Finance Minister has inaugurated a project called 'My Pad, My Right' initiated by NABARD and NABFOUNDATION at Killa village in Gomati district on the second and concluding day of her visit to the state.
- The project aims to bring livelihood and menstrual hygiene closer to rural women by way of grant, wage support and capital equipment.
- The Union Minister also flagged off the mobile ATM van of Tripura State Co-Operative Bank Limited which will cover all Gram Panchayats and Village Committees of South Tripura District.

Amul ranks 18th in Rabobank 2021 Global Dairy Top 20 Report



- Amul, Gujarat Cooperative Milk Marketing Federation (GCMMF) has dropped two places to rank 18th in Rabobank's 2021 Global Top 20 Dairy Companies list.
- Amul was placed at 16th spot in 2020. Amul has achieved an annual turnover of \$5.3 billion.
- French-based dairy company Lactalis has topped the list as the world's largest dairy company with a turnover of US \$23.0 billion.
- It has unseated Switzerland-based global behemoth Nestle, which dominated the list for decades.

What is Rabobank's Global Dairy Report?

 Rabobank's Global Dairy Top 20 Report is released annually to rank the dairy industry upon their sales data and financial statements.

Ladakh declares snow leopard as new state animal



- The Union Territory of Ladakh has declared snow leopard as its state animal and black-necked crane as the state bird.
- Principal Secretary Forest, Ecology and Environment, Pawan Kotwal issued a notification in this regard on Tuesday.
- In the erstwhile Jammu and Kashmir, Kashmir stag (Hangul) and black-necked crane were the state animal and bird respectively.

INDIAN ROYAL JELLY



- For the first time, Indian Royal Jelly has been found to surpass top-quality sellers, including those produced in Thailand and Taiwan.
- Known for being a good antioxidant, and helping women with fertility issues, among other health benefits, the Indian Royal Jelly meets the ISO-prescribed standards imposed by the Food Safety and Standards Authority of India (FSSAI) in 2019, according to Pune-based researchers.
- Royal Jelly is a pearly white or pale yellow-coloured cohesive mixture of honey and secretions from the hypopharyngeal and mandibular glands of worker honeybees.

- It contains moisture or water (60-70 per cent), lipids (1-10 per cent), minerals (0.8-3 per cent), proteins (9-18 per cent), sugar (7 per cent) and other elements.
- Being highly nutritious, this substance is used as food to young larvae and adult queen honeybees.
- Commercially, royal jelly is produced artificially by stimulating bee colonies to produce queen bee, grown outside its natural habitat.
- The larvae in the queen cells are fed with nutritious royal jelly.
- The perfect time to harvest royal jelly is when the maximum amount gets accumulated upon the larva turning 5 days old.



Odisha's Kendrapara, India's only district to have all 3 species of crocodilians



- This has been declared after forest officials found a baby gharial (Gavialis gangeticus) in the Paika river of the Bhitarkanika National Park, located in the district.
- The National Park is also the home of saltwater crocodiles (Crocodylus porosus).
- In October, 2016, the forest department had rescued a live 12-foot-long mugger (Crocodylus palustris) from a fishing net in the Luna river.
- The gharial and saltwater crocodile conservation programme was first implemented in Odisha in early 1975 and subsequently, the mugger conservation programme was initiated.

- In 1975, the Union ministry of forest and environment, in collaboration with the United Nations Development Programme, had started a crocodile breeding and rearing project in Dangamala within the Bhitarkanika.
- Gharial-
- It is found in clear freshwater river systems, congregating at river bends where the water is deeper.
- Also called as gavials, they are a type of Asian crocodilian distinguished by their long, thin snouts.
- They congregate to mate and make nests during the dry season, when females lay eggs in sandbanks along slow-moving sections of water.
- These animals do not stalk and lunge at prey like other crocodilians.
- Their snouts contain sensory cells that can detect vibrations in the water.
- It is found mostly in Himalayan rivers.



- IUCN status: Critically Endangered
- Saltwater Crocodile-
- It is the earth's largest living Crocodilian.
- It inhabits coastal brackish mangrove swamps and river deltas.

- The saltwater crocodile has a wide snout compared to most crocodiles.
- IUCN Status: Least Concern
- Mugger-
- The mugger crocodile is also called marsh crocodile, a broad-snouted crocodile.
- It is principally restricted to the Indian subcontinent where it may be found in a number of freshwater habitat types including rivers, lakes and marshes.
- Females dig holes in the sand as nesting sites and lay up to 46 eggs during the dry season.
- Sex of hatchlings depends on temperature during incubation.
- Its visual, hearing and smelling senses are acute.
- IUCN status: Vulnerable



School bubbles





- The Covid-19 technical advisory committee (TAC) constituted by the Karnataka government has proposed the 'school bubble' concept to mitigate the spread of the disease among children attending offline classes at schools and pre-university colleges across the state.
- School bubbles are physical classifications made between groups comprising a small number of students.
- Each such bubble will include students who tend to remain as a group during school hours throughout the term or an academic year.
- The concept would help managements easily isolate a fewer number of students in case anyone gets infected but the school need not be closed completely.
- Owing to the smaller set of students who need to be managed, activities like contact-tracing and testing are also easier if infections stay inside school bubbles.

- This would allow uninterrupted learning to others.
- According to experts the concept will be more relevant to students studying in primary school or below.
- The 'school bubbles' is not a novel concept and was first implemented by certain countries in 2020 including the United Kingdom, Qatar.
- The TAC has recommended the implementation of the concept terming it "operationally feasible" across schools in Karnataka.



Rare merger of three jumbo black holes spotted



- Recently, Indian scientists have discovered three black holes from three galaxies merging to form a triple active galactic nucleus.
- A team of researchers from the Indian Institute of Astrophysics (IIA) detected unusual emissions from the centre of the NGC7734 galaxy and a large, bright clump along the northern arm of the NGC7733 galaxy.
- Inferring that this was a separate galaxy, the scientists named it NGC7733N.
- All three merging black holes were part of galaxies in the Toucan constellation.
- They are quite far away when you think that our nearest galactic neighbour the Andromeda galaxy is 2.5 million light years away.
- Scientists used data from the Ultra-Violet Imaging Telescope (UVIT), the European integral field optical telescope called MUSE in Chile and infrared images from the optical telescope (IRSF) in South Africa.

- The UV and H-alpha images also supported the presence of the third galaxy by revealing star formation along with the tidal tails, which could have formed from the merger of NGC7733N with the larger galaxy.
- This rare occurrence in our nearby Universe indicates that small merging groups are ideal laboratories to detect multiple accreting supermassive black holes and increases the possibility of detecting such rare occurrences.

